

September 29, 2016

VIA HAND DELIVERY AND EMAIL

Mr. Paul Baker, Minerals Program Manager  
Division of Oil, Gas & Mining  
Utah Department of Natural Resources  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

M/035/0002

RECEIVED

SEP 29 2016

DIV. OF OIL, GAS & MINING

**Subject: M/035/0002 – Bingham Canyon Mine  
Treatment Plan for the Lark Townsite  
Information for Public Use**

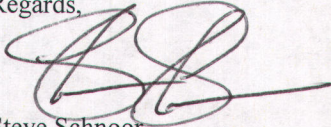
Dear Mr. Baker:

In association with the Treatment Plan for Historic Properties Mitigation at the Historic Lark Townsite (Plan), Rio Tinto Kennecott Copper (RTKC) has prepared the enclosed materials (poster display and pamphlets) for public use. This fulfills RTKC's commitment to make appropriate findings and information associated with the Plan available to the public.

RTKC appreciates your continued cooperation and support.

Please feel free to contact Mr. Trevor Heaton, Reclamation Engineer, 801-563-1514, (Trevor.Heaton@riotinto.com) with any questions you might have.

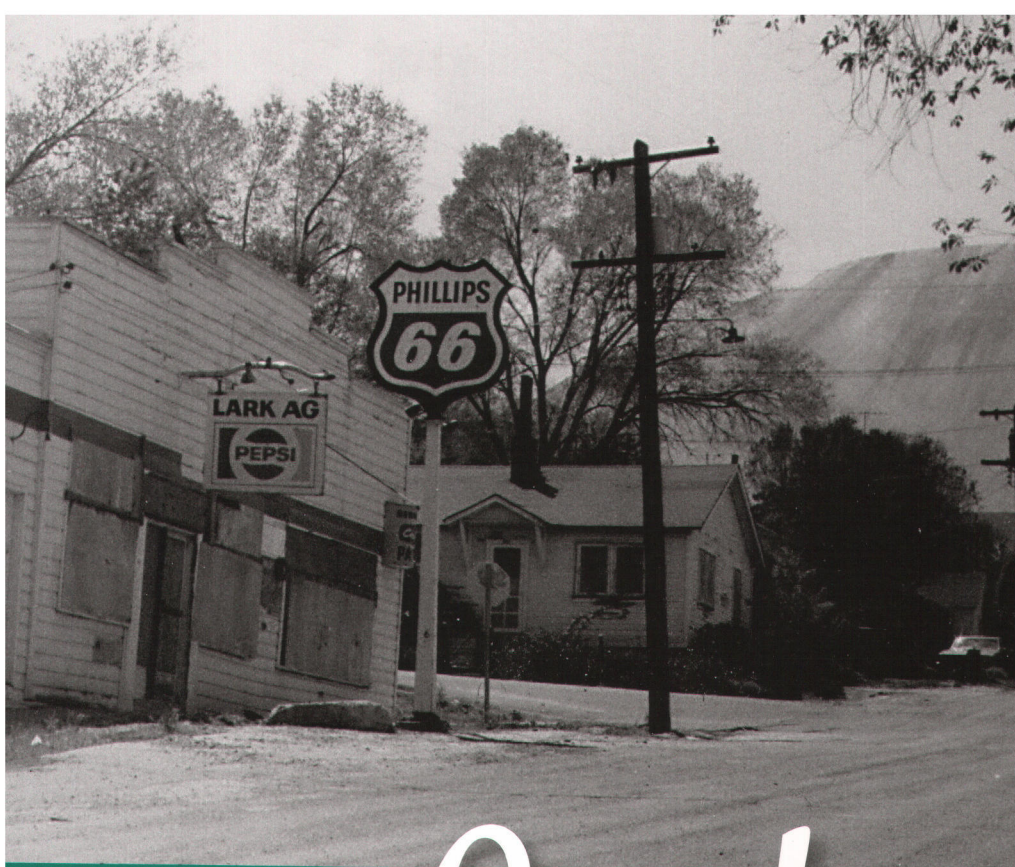
Regards,



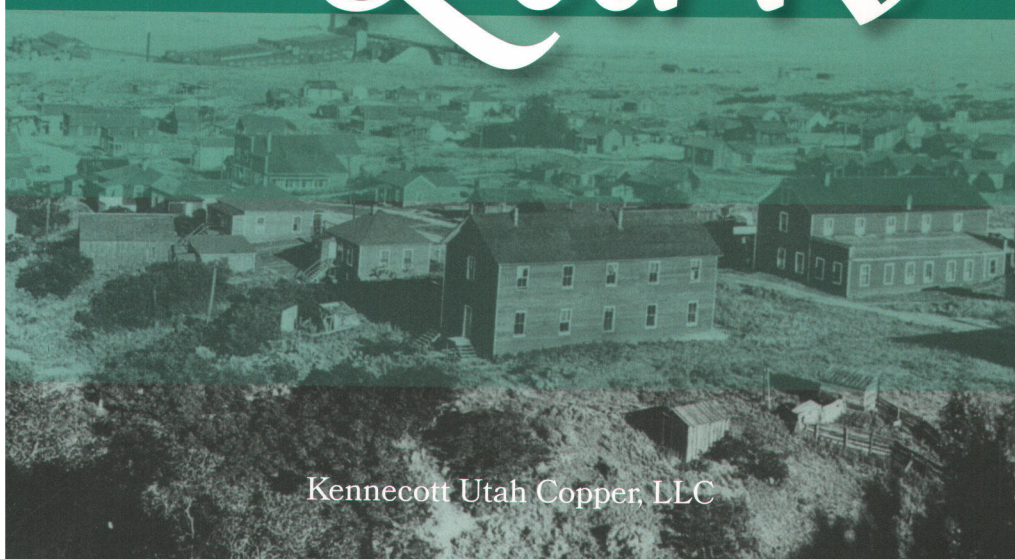
Steve Schnoor  
Manager – Environment, Land, and Water

Cc: Leslie Heppler (UDOGM)





# MEMORIES OF Lark



Kennecott Utah Copper, LLC





# INTRODUCTION

The former townsite of Lark is located due south of Copperton and west of Herriman near the mouth of Butterfield Canyon. In 2014, the continuation of mining activities at the Bingham Canyon Mine, owned by Kennecott Utah Copper, LLC, had the potential to disturb what remained of the historic townsite (42SL714), a former company town which was last occupied in 1978.

In cooperation with the Utah Division of Oil, Gas and Mining, Kennecott executed a mitigation plan targeted at dis-

covering and preserving artifacts and information within the townsite before further physical disturbance to Lark. As part of the mitigation effort, this informational booklet was developed in order to preserve the history of the Lark townsite and its residents. Information and images for this booklet were gathered from the Brigham Young University Library and Archives; the Utah State University Library; the Lark, Utah Facebook page; Eugene Halverson's website; OnlineUtah.com; and Ancestry.com.

*Transporting Ore from Bingham Canyon*







# THE BINGHAM BROTHERS



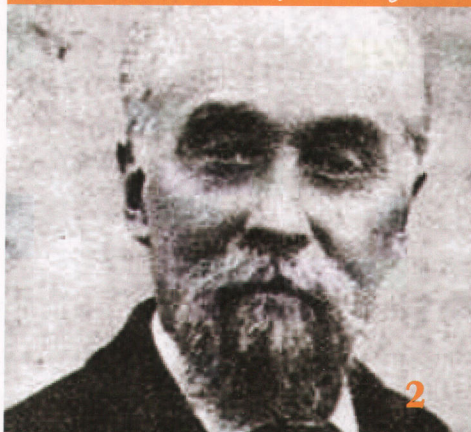
*Thomas Bingham*

The first non-native settlers in the Salt Lake Valley were Mormons who had traveled from the Midwest to escape religious persecution. They arrived in a valley formed by the Oquirrh and Wasatch Mountains on July 24, 1847, and quickly established Great Salt Lake City and the Territory of Utah. These early settlers established and worked on large family farms, and relied heavily on locally produced food and supplies.

In 1848, Church leader Brigham Young sent brothers Thomas and Sanford Bingham from the Salt Lake Valley to the eastern foothills of the Oquirrh Mountains to maintain cattle owned by both the Young and Bingham families. The brothers selected the base of one exceptionally narrow canyon—which would later be known as “Bingham

Canyon”—as the site of their homestead and cabin. Exploring the rugged area as they followed their grazing cattle, Thomas and Sanford discovered galena ore, a find which they reported to Brigham Young. Knowing that the presence of this profitable metal ore would encourage non-Mormon settlement and exploitation of the area—a threat to the agricultural lifestyle promoted by the Church—Young advised the brothers against staking a mining claim. The brothers followed Young’s guidance and, in 1850, headed north to help establish what would become the city of Ogden, leaving the underground riches of Bingham Canyon unclaimed.

*Sanford Bingham*





About 20 miles northeast of Bingham Canyon, Fort Douglas was established in 1862 to provide protection for stagecoaches traveling the Central Overland Route during the Civil War. A group of volunteer soldiers stationed at the fort unearthed a small amount of gold during an excursion to Bingham Canyon in 1863 and reported their discovery to Colonel Patrick Connor. During a second trip to the canyon—this time led by Connor—the men located a large vein of gold and silver ore.

After staking the West Jordan and Vidette claims, Connor began to promote prospecting and mining in the canyon in an attempt to attract non-Mormon immigrants to the area, hoping that the “gentile” influx would help to dismantle the Church’s control of the Utah Territory. The West Mountain Mining District, encompassing the entire Oquirrh mountain range, was established in December 1863. Newcomers from all over the world quickly began arriving to seek work in the new mines.



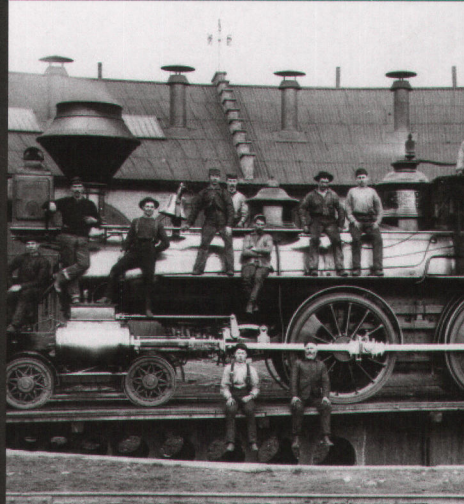
## MINING in BINGHAM CANYON





During the first several years of mining operations in Bingham Canyon, high transportation costs made underground mining in the canyon impractical. Instead, "placer mining," or washing ores by hand, was used in Bingham Creek. However, with the arrival of the Utah Central Railroad in 1873, underground lode mining soon became feasible. The railroad connection spurred the development of several larger mines in the area, including the Boston Consolidated, the Brooklyn, the No-You-Don't, and the Yosemite Number One. Together, these mines brought prosperity to the Bingham Canyon area.

### *Utah Central Railroad Men, 1885*



### *Settlers in Lark*

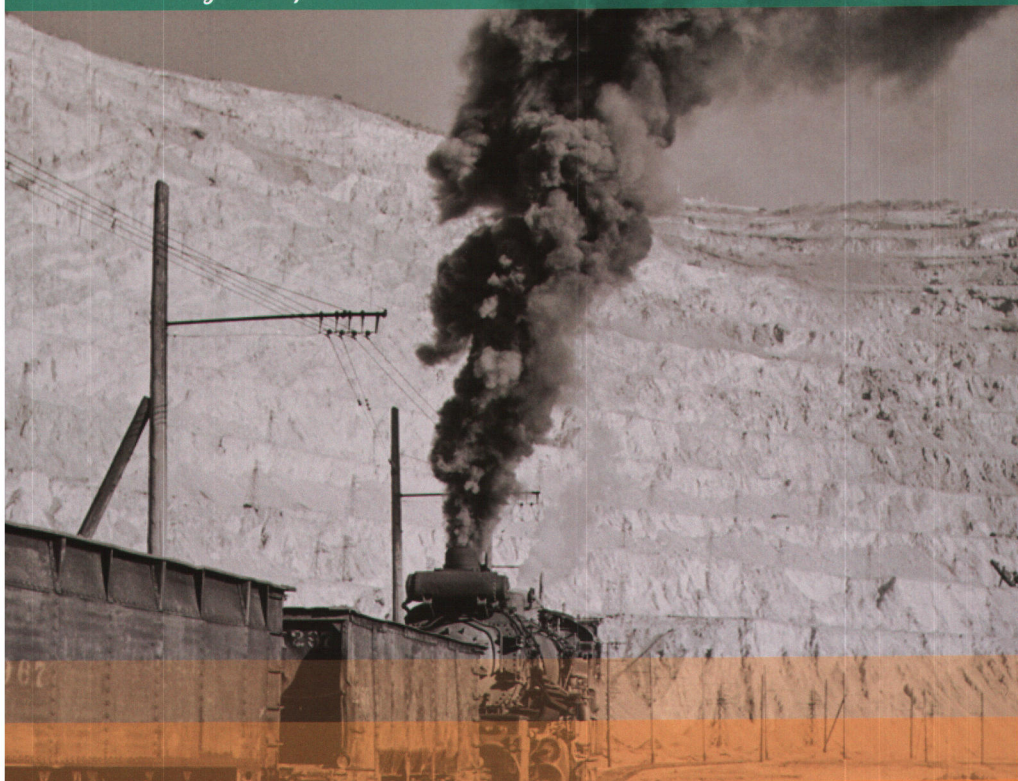


As mining operations in Utah began to shift away from gold production toward lead, copper, and silver production in the 1880s, more small mining towns were established in the vicinity of Bingham Canyon. Among these were the townsites of Dalton and Lark. The town of Dalton was located upslope from Lark and was the center of most mining activities, while Lark remained a residential community for those who worked in the mines. In 1895, the Dalton and Lark claims, along with 14 other claims, were consolidated to form the Dalton and Lark Gold, Silver, and Lead Mining Company.

### *Copperton Mill*







## BUST AND BOOM in LARK

By the end of 1899, water drainage problems forced the Dalton and Lark mines to shut down. All mine workers were laid off, and the mines were shuttered. After 2 years, the Dalton and Lark properties were sold to the Bingham Copper and Gold Company. The Boston-based investment firm Hornblower and Weeks acquired the entirety of the Bingham holdings late in 1901, and reorganized it as the Bingham Consolidated Mining and Smelting Company. To promote drainage and rid the area of its water problems, Bingham Consolidated began constructing the Mascotte Tunnel in late 1901. In an attempt to

Consolidated constructed a 3.5-mile railroad line—the Dalton and Lark Spur—connecting the Mascotte Tunnel portal to the Revere Switch station of the Rio Grande Western Railroad in 1902. Two years later, the Mascotte Tunnel was enlarged to accommodate a double-track electrified mining railroad and was outfitted with an electric locomotive. By 1907, Bingham Consolidated constructed a steam power plant, steam-operated compressor, and an electric generator in the town of Lark.



Lark played a central role in the development of open-pit mining practices in the late 1800s. In 1896, Daniel Jackling, a young metallurgist, and Robert Gemmell, a mining engineer, were hired to assess the Bingham Canyon mining properties, including Lark, for potential profitability. Their resulting 1899 report suggested that low-grade “porphyry” copper ore present in extremely small percentages throughout the canyon could be extracted through “open pit,” or “open cut,” mining. Unlike traditional underground mining, the open-pit process used steam shovels to remove large quantities of surface earth—which was then separated into ore and overburden (waste rock)—eventually creating a large borrow pit. Various established mining engineers immediately scoffed at Jackling’s proposal; however, mine share-



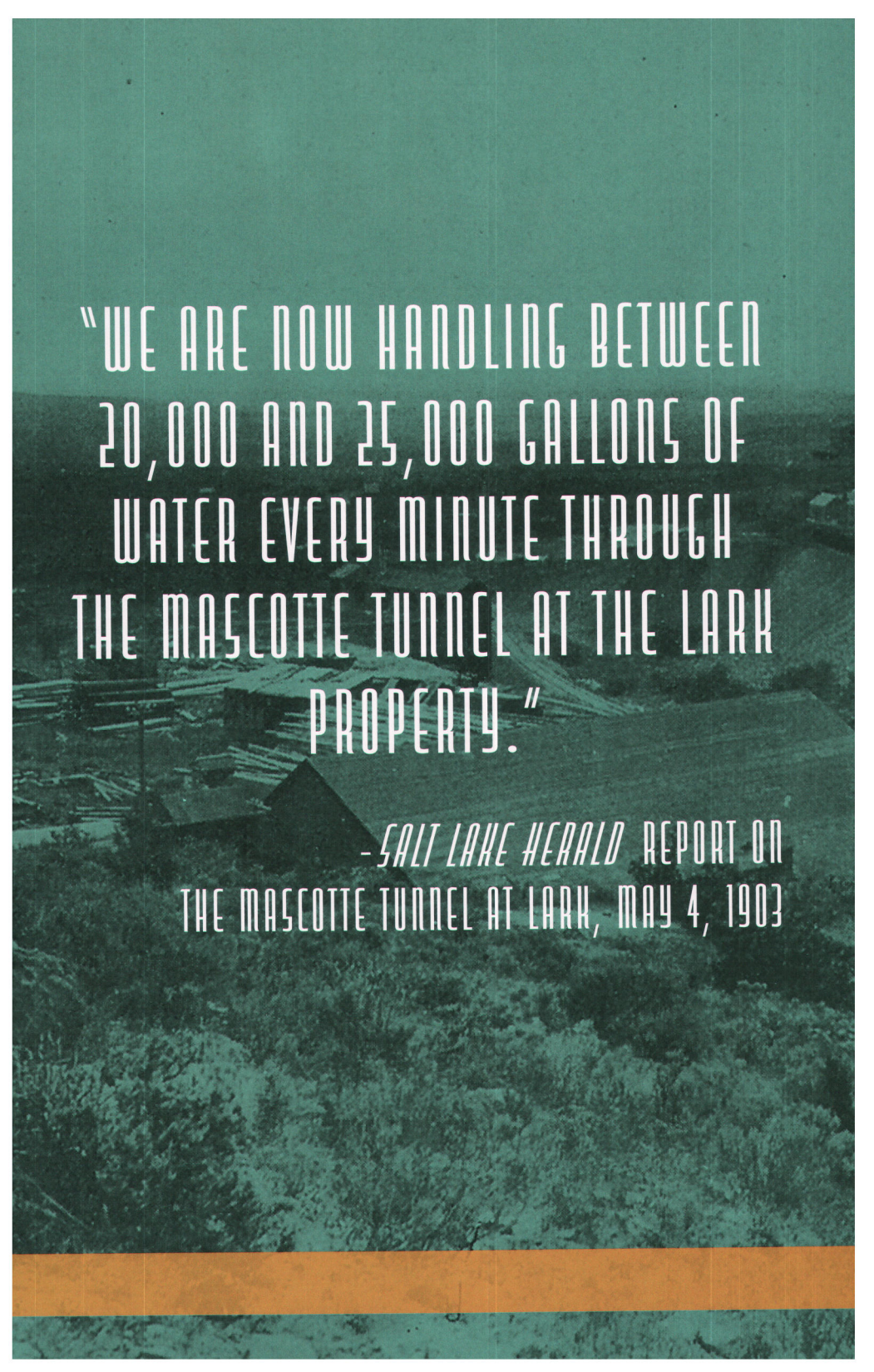
*Daniel Jackling*

holder Enos Andrew Wall was intrigued by the opportunity and encouraged further investigation into the process. Wall and Jackling organized the Utah Copper Company in June 1903 to begin open-pit mining. The Utah Copper Company constructed an experimental 350-ton concentrator mill at Copperton, near Lark, and began open-pit operations in June 1907.



*Lark Main Street*

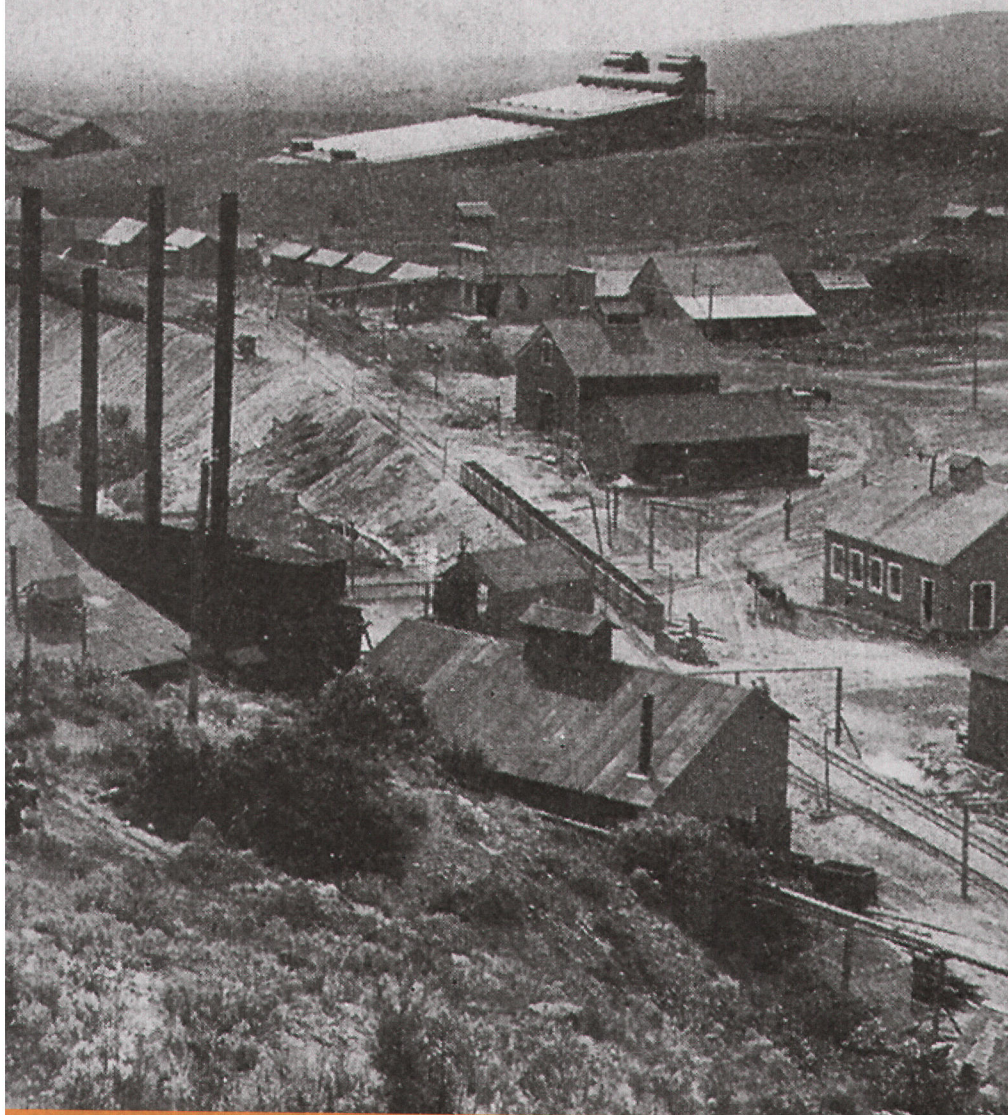


An aerial photograph of a desert landscape, likely in the American Southwest. In the center-left, there is a small, dark, rectangular building with a flat roof. To its right, a long, narrow, light-colored structure, possibly a tunnel entrance or a long building, extends towards the right edge of the frame. The surrounding terrain is arid, with sparse, low-lying vegetation and some rocky patches. The overall color palette is dominated by earthy tones, with a prominent orange-brown band at the bottom of the image.

"WE ARE NOW HANDLING BETWEEN  
20,000 AND 25,000 GALLONS OF  
WATER EVERY MINUTE THROUGH  
THE MASCOTTE TUNNEL AT THE LARK  
PROPERTY."

-SALT LAKE HERALD REPORT ON  
THE MASCOTTE TUNNEL AT LARK, MAY 4, 1903



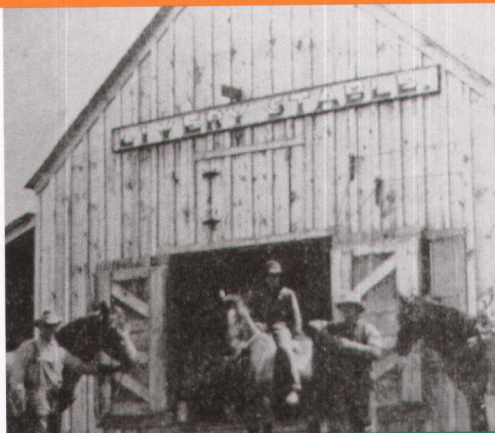


*Lark Townsite and Mascotte Tunnel, c. 1910*



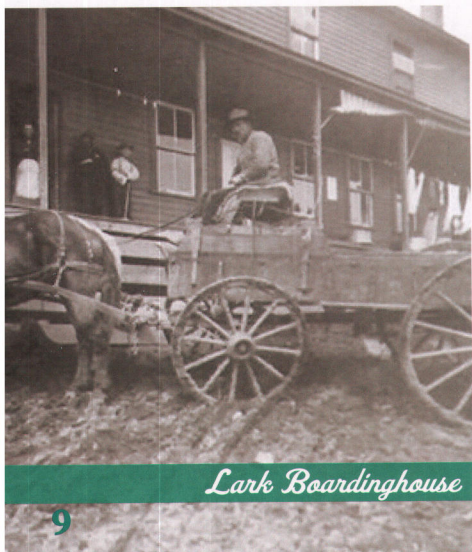
# LARK CONTINUES TO GROW

Between 1905 and 1907, the Bingham Consolidated Mining and Smelting Company was acquired by the Ohio Copper Company, owned by Augustus Heinze. Heinze purchased the Mascotte Tunnel with the intent of expanding it to transport ore between multiple mining properties along the eastern slopes of the Oquirrh Mountains. He also purchased and paid for the construction of a large gravity-concentrator mill at Lark. As the mill neared completion, the Financial Panic of 1907 caused all mining operations to once again cease in Lark.



*Lark Livery Stable*

By January 1909, Bingham Consolidated, under the ownership of the Ohio Copper Company, was reorganized as the Bingham Mines Company, and operations at Lark resumed—this time with a focus on copper, lead, and lead-silver ores. The town of Lark was the company headquarters and was once again the home of many company workers. A boardinghouse, later converted for use as the Lark Hotel, was constructed, along with the town's first general store. In 1908, a Mormon church and post office were constructed at Lark, adding to the town's existing amenities, which included two saloons, a dance hall, a schoolhouse, and a livery stable.



*Lark Boardinghouse*





The Bingham Canyon area became a highly diverse and culturally rich community as more and more immigrants came to seek work in the bustling mines during the early twentieth century. After 1909, as scientific management—or Taylorism, named after creator Frederick Taylor—became a popular tool for streamlining workflows and increasing economic efficiency, camps throughout the canyon began to segregate workers by job description, work status, ethnicity and language. These labor policies, in addition to workers' tendencies to settle among people who shared their native language and customs, resulted in the creation of several

distinct ethnic nodes in the canyon. The towns of Bingham, Carr Fork, Copperfield, Dinkeyville, Frogtown, and Highland Boy all served as social hubs for various ethnic groups working in the area. By 1920, the total population of all communities in the canyon had grown to more than 15,000, of which 65% were foreign-born workers. Miners who settled in Lark before 1900 were largely British, Welsh, Cornish, and Irish, but as the town grew, Italians and Australians were also welcomed into the community. Lark quickly became known as one of the most diverse and inclusive communities in the area.



*Children of Bingham Canyon Miners*





# WORLD WAR I AND THE GREAT DEPRESSION

As the United States entered into World War I, wartime demand for metals forced mines throughout Utah to drastically increase production. Between 1910 and 1917, the Utah Copper Company stepped up its annual production from 63 million to 143 million short tons of ore. This increased production required a much larger labor force, resulting in the continued growth of Lark and surrounding company towns. As the war ended, production demand slowed, but growth in Bingham Canyon continued.





Unlike many mines throughout the United States, the Utah Copper Company continued operations through the Great Depression. Rather than conducting massive layoffs, the company placed employees on a modified schedule: miners worked for 10 or 15 days straight and then had 10 or 15 days off. The mining company, which owned most of the properties rented by miners in the area, began to only charge rent on days when employees worked, and it also provided fuel and food to workers as needed. During a time when Utah was suffering from a 36% unemployment rate, the generous actions of the Utah Copper Company encouraged miners to remain in the Bingham Canyon area and allowed the mining district as a whole to recover from the Great Depression with relative ease.

*Lark Miners*



SION



*Bingham Canyon, 1925*





## LARK RISES TO THE OCCASION

The United States Smelting, Refining and Mining Company (known as the USSR&M) acquired the assets of the Bingham Mining Company in 1929. Through the use of a flotation mill in Midvale, the new company could more efficiently process ore from the mine at Lark. Soon, the Lark Mine became the largest producer of lead and zinc ore in the entire state of Utah. This uptick in production prompted the USSR&M to move its headquarters from

the town of Bingham to Lark in 1941. The United States' entrance into World War II led to a labor shortage in the Lark Mine, as well as an increased metal production expectation. As hundreds of lifelong miners were called overseas to serve in the war, many local women and teenagers volunteered to fill the labor gaps at the Lark Mine. By 1943, the Lark Mine was producing up to 323 million short tons of ore annually.

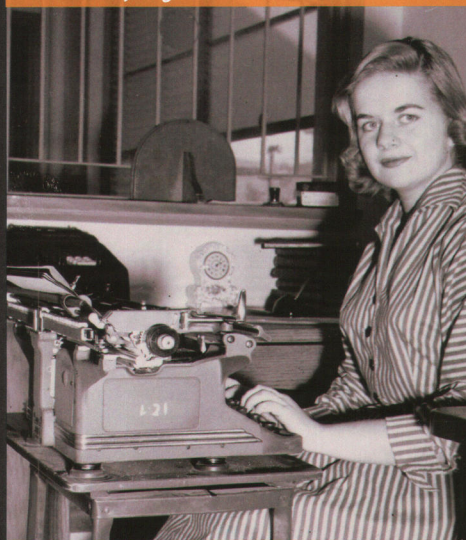




Following the end of World War II, in 1949, the USSR&M selected Lark as the location of a new mining facility, which included shops, offices, and a medical clinic. Between 1948 and 1951, the company also constructed the \$6 million Bingham Tunnel to replace the Mascotte Tunnel. The company's increased investment in the Lark Mine brought a new era of prosperity to the entire town, encouraging more workers to settle in Lark.

Lark Heights, the town's first multi-family housing development, was constructed on a flat area just outside of town during World War II. According to Timothy Jess Funk, who wrote a case study on Lark in 1987, the USSR&M encouraged its employees to live in Lark, build their homes on company land, and raise their families there. The company also allowed its employees to continue living in Lark upon their retirement. By the mid-1950s, Lark was home to about 800 people and included not only current Lark Mine workers but also the spouses of former employees.

### *Mine Employee*



### *Lark Heights Subdivision*



### *Touring the Lark Mine, c. 1950*







*Lark Day at Lagoon Park, 1955*





"I HAVE ALWAYS BEEN PROUD  
OF LARK, THE BEST PLACE IN THE  
WORLD TO REAR CHILDREN."

-LARK RESIDENT AND  
SHERIFF CLYDE CRUMP, 1963





## LARK: A FAMILY TOWN

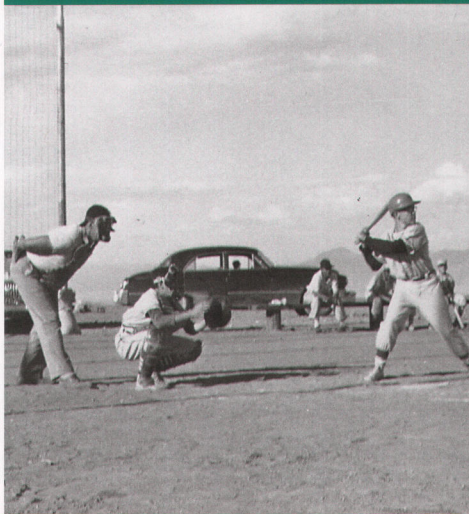
The town of Lark grew alongside the busy USSR&M mining operation during the postwar years. As servicemen returned from the war and more mine workers brought their families to live in Lark, the town was transformed into a vibrant and diverse family-focused community. Town events sponsored by local Catholic and Mormon congregations, as well as the Lions Club and Lark Elementary School, brought the townspeople together and kindled lifelong friendships. In 1952, a town committee organized “Lark Day” at the Lagoon Amusement Park in nearby Farmington, and the event quickly became a favorite annual tradition for Lark families.





Outside of Lark Days, the people of Lark maintained an active community with organized recreational activities, such as Thursday night volleyball games held in the Mormon Church gymnasium. By the late 1950s, the town of Lark also boasted its very own tennis court and baseball diamond, and a little league team was formed. Children in Lark were also known to play—likely to the disapproval of their parents—on the old concentrator mill outside of town, and in the winters, Turpin Hill near Lark Heights was considered a prime location for sledding.

### *Baseball Game in Lark*



*Dance at Lark School, 1953*





# FINAL DAYS IN LARK

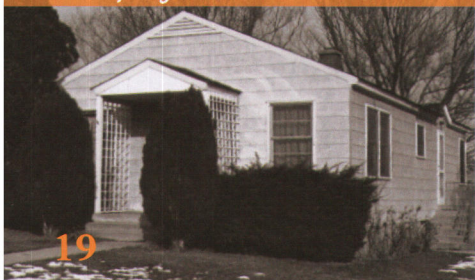
The USSR&M officially shuttered the Lark Mine in 1971. Despite the closure, many families remained in Lark on rented land or in rental properties that were leased on a yearly basis. Children continued to attend the Lark School or Bingham High School, which was located in nearby Copperton. Even with the Lark Mine closed, open-pit mining operations in nearby Bingham Canyon continued. As these mines produced more and more waste rock, overburden piles began to encroach on the Lark townsite. Kennecott, recognizing the potential impacts associated with the encroaching overburden piles, purchased the Lark



*Company Duplex in Lark, 1978*

townsite in December 1977 and began making arrangements to relocate long-time Lark homeowners and renters to elsewhere in the Salt Lake Valley. Kennecott's relocation service offered assistance to homeowners and renters alike, interviewing each individual household and making offers based on the needs of residents. Lark families could choose to sell their house to Kennecott, to allow Kennecott to move their house to nearby Copperton, or to buy a new house in the area with federal program assistance.

*Company House in Lark, 1978*





In February 1978, the first vacant Lark residence, one of the buildings in the Lark Heights complex, was razed. By August, all residents had vacated the town of Lark, and demolition of the town's remaining structures commenced. Soon after, Kennecott constructed Copperton Circle on the east end of Copperton and moved nine gable-roofed wood frame company houses and duplexes from Lark to the new street. Today, these residences have been sheathed in red brick and represent the last physical remnants of the town of Lark. In 2014, Logan Simpson of Salt Lake City conducted an archaeological investigation on the site of the former town. Underground testing confirmed that the area, which has been subject to mining related activities for over a century, is no longer recognizable as the Lark townsite.



*Lipstick Artifact from Lark*

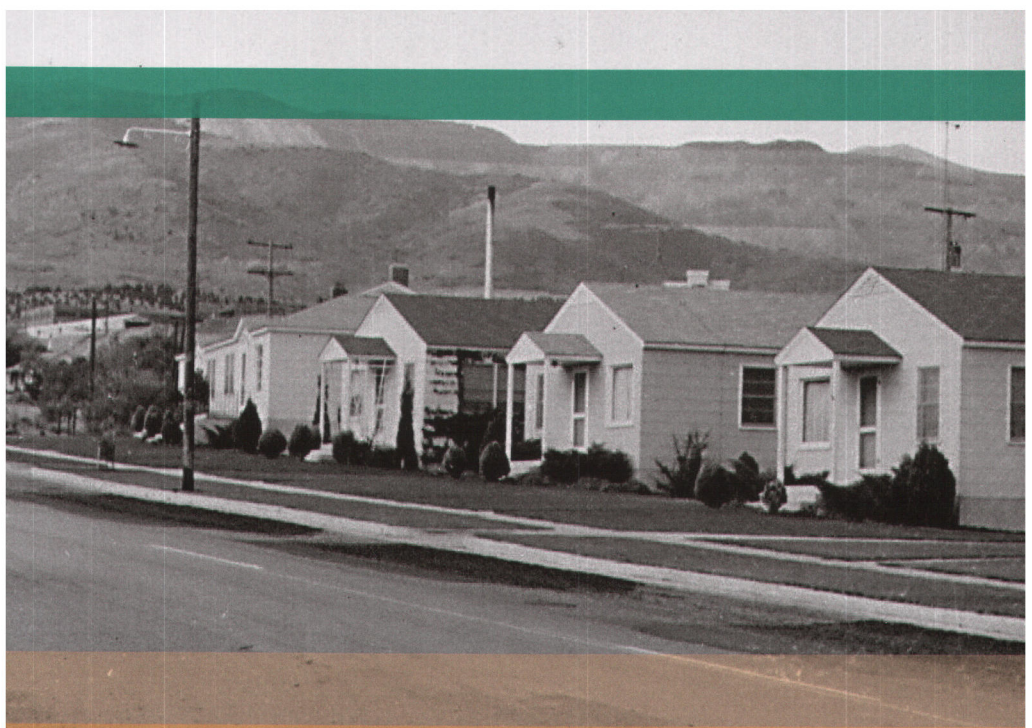


*Bird Artifact from Lark*

*Former Lark Company Houses on Copperton Circle, 2015*







# BIBLIOGRAPHY



*Company Houses in Lark*





